Dresden Unit 2

DPR-19

DRAFT Technical Specifications Concerning Degraded Voltage Relays

Revised Pages:

41	
43	
147	
148	

New Page:

148a

Dresden Unit 3 changes would be be identical for pages 41 and 43. Note: The proper Unit numbers would be the only difference for pages 147, 148 and 148a.

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TABLE 3.2.2 (cont)

Min. No. of Operable Inst. Channels per Trip System (1)	Trip Function	Trip Level Setting	Remarks	
2	Low Pressure Core Cooling Pump Discharge Pressure	50 psig≤p ≤ 100 psig	Defers APR actuation pend- ing confirmation of low pressure core cooling system operation.	
2 ⁽⁵⁾ /Bus	Under voltage on Emergency Buses	N/A	 Initiates starting of diesel generators. Permissive for starting ECCS pumps. Removes non-essential loads from buses. 	
2	Sustained High Reactor Pressure	≤1070 psig for 15 seconds	Initiates isolation condenser	
2 ⁽⁵⁾ /Bus	Degraded voltage on 4kv Emergency buses.	3805 volts ± 2% with 5 ± 2% minute time delay	Initiates alarm and picks up time delay relay. Diesel Generator picks up load if degraded voltage not corrected after time delay.	

Notes:

1. For all positions of the Reactor Mode Selector Switch (except for the containment interlock) whenever any ECCS subsystem is required to be operable, there shall be two operable or tripped trip systems. If the first column cannot be met for one of the trip systems, that system shall be tripped. If the first column cannot be met for both trip systems, immediately initiate an orderly shutdown to cold conditions.

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- 2. Need not be operable when primary containment integrity is not required.
- 3. May be bypassed when necessary during purging for containment inerting or deinerting.
- 4. If an instrument is inoperable it shall be placed (or simulated) in the tripped condition so that it will not prevent containment spray.
- 5. With the number of operable channels one less than the total number of channels, operation may proceed until performance of the next required functional test, provided the inoperable channel is placed in the tripped condition within one hour.

TABLE 4.2.1

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MINIMUM TEST AND CALIBRATION FREQUENCY FOR CORE AND CONTAINMENT COOLING SYSTEMS INSTRUMENTATION, ROD BLOCKS, AND ISOLATIONS

	Instrument Channel	Instrument Functional Test (2)	Calibration (2)	instrument Check (2
EC	CS INSTRUMENTATION	· · · · · · · · · · · · · · · · · · ·		·. ·
.1.	Reactor Low-Low Water Level	(1)	Once/3 Months	Once/Day
2.	Drywell High Pressure	(1)	Once/3 Months	None
3.	Reactor Low Pressure	(1)	Once/3 Months	None
4.	Containment Spray Interlock			
	a. 2/3 Core Height	(1)	Once/3 Months	None
_	b. Containment High Pressure	(1)	Once/3 Months	None
5.	Low Pressure Core Cooling Pump Discharge	(1)	Once/3 Months	None
	Undervoltage Emergency Bus	Refueling Outage	Refueling Outage	None
7.	Degraded Voltage 4kv essential Buses	Refueling Outage	Refueling Outage	None
8.	Sustained High Reactor Pressure	(1)	Once/3 Months	None
1.		(1) (3) (1) (3)	Once/3 Months Refueling Outage	None None
3.	APRM Upscale (Startup/Hot S		(2) (3)	(2)
4.	IRM Upscale	(2) (3)	(2) (3)	(2)
5.		(2) (3)	(2) (3)	(2)
6	IRM detector not fully inse		(2)(3) N/A	•
••	in the core		N/A	None
7.	RBM Upscale	(1)(3)	Refueling Outage	None
••	RBM Downscale	(1)(3)		
	RDM DOWNSCale		Unce/3 Months	None
8.			Once/3 Months (2)(3)	None (2)
8. 9.	SRM Upscale	(2)(3)	(2)(3)	(2)
8. 9. 0.	SRM Upscale SRM Detector Not in Startup	(2)(3)	•	
8. 9. LO.	SRM Upscale	(2)(3)	(2)(3)	(2)
8. 9. 0. <u>MA</u> 1.	SRM Upscale SRM Detector Not in Startup IN STEAM LINE ISOLATION Steam Tunnel High Temperature	(2)(3) Position(2)(3)	(2) (3) (2) (3)	(2) (2)
8. 9. 10. <u>MA</u> 1. 2.	SRM Upscale SRM Detector Not in Startup IN STEAM LINE ISOLATION Steam Tunnel High Temperature Steam Line High Flow	(2)(3) Position(2)(3) Refueling Outage	(2) (3) (2) (3) Refueling Outage	(2) (2) None
8. 9. LO. <u>MA</u> 1.	SRM Upscale SRM Detector Not in Startup IN STEAM LINE ISOLATION Steam Tunnel High Temperature	(2)(3) Position(2)(3)	(2) (3) (2) (3)	(2) (2)

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3.9 LIMITING CONDITION FOR OPERATION

- (b) One 345 KV line from Unit³ capable of carrying auxiliary power to an essential electrical bus of Unit 2 through the 4160 volt bus tie.
- . (a) 4160 volt buses 2 3-1 and 24-1 are energized.
 - (b) 480 volt buses 28 and 29 are energized.
- 5. The unit 24/48 volt batteries, the two station 125 volt batteries and the two station 250 volt batteries and a battery charger for each required battery are operable.
- B. Except when the reactor is in the Cold Shutdown or Refueling modes with the head off, the availability of electric power shall be as specified in 3.9.A, except as specified in 3.9.B.1, 3.9.B.2, and 3.9.B.3.
 - 1. From and after the date that incoming power is available from only one line, reactor operation is permissible only during the succeeding seven days unless an additional line is sooner placed in service providing both the Unit 2 and Unit 2/3 emergency diesel generators are operable. From and after the date that incoming power is not available from any line, reactor operation is permissible providing both the Unit 2 and Unit 2/3 emergency diesel generators are operating and all core and containment cooling systems are operable and the AEC is notified within 24 hours of the situation. the precautions to be taken during this situation, and the plans for prompt restoration of incoming power.

4.9 SURVEILLANCE REQUIREMENT

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B. Station Batteries

1. Every week the specific gravity and voltage of the pilot cell and temperature of adjacent cells and overall battery voltage shall be measured.

3.9 LIMITING CONDITION FOR OPERATION

- From and after the date that one of the diesel generators and/or its associated bus is made or found to be inoperable for any reason, reactor operation is permissible according to Specification 3.5/4.5F and 3.9D only during the succeeding seven days unless such diesel generator and/or bus is sooner made operable, provided that during such seven days the operable diesel generator shall be demonstrated to be operable at least once each day and two off-site lines are available.
- 3. From and after the date that one of the two 125/250 battery systems is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding seven days unless such battery system is sooner made operable.
- C. Diesel Fuel

There shall be a minimum of 10,000 gallons of diesel fuel supply on site for each diesel.

D. Diesel Generator Operability

Whenever the reactor is in the Cold Shutdown or Refueling modes, a minimum of one diesel generator (either the Dresden 2 diesel generator or the unit 2/3 diesel generator) shall be operable whenever any work is being done which has the potential for draining the vessel, secondary containment is required, or a core or containment cooling system is required.

4.9 SURVEILLANCE REQUIREMENT

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2. Every three months the measurements shall be made of voltage of each cell to nearest 0.01 volt, specific gravity of each cell, and temperature of every fifth cell.

3. Every refueling outage, the station batteries shall be subjected to a rated load discharge test. Determine specific gravity and voltage of each cell after the discharge. If this specification has been complied with for a particular battery for Dresden Unit 3, it shall not be required for Dresdén Unit 2.

Once a month the quantity of diesel fuel available shall be logged.

Once a month a sample of diesel fuel shall be checked for quality.

D.1. The surveillance requirements are the same as that given in 4.9.A

 Additionally, during each refueling outage, a simulated loss of off-site power in conjunction with an ECCS initiation signal test shall be performed on the 4160 volt emergency bus by:

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C. Diesel Fuel

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- a. Verifying de-energization of the emergency buses, and load shedding from the emergency buses.
- b. Verifying the diesel starts from ambient - condition on the auto-start signal, energizes the emergency buses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer, and operates for > 5 minutes while its generator is loaded with the emergency loads.
- c. Verifying that on a diesel generator breaker trip, the loads are shed from the emergency buses, the emergency buses are energized with permanently connected loads, the auto-connected emergency loads are energized through the load sequencer, and the diesel operates while its generator is loaded with the emergency loads.
- d. During each refueling outage, the conditions under which the diesel generator is required will be simulated and a test conducted to demonstrate that it will start and accept the emergency load. If this specification has been complied with for the shared diesel generator (2/3 diesel) for Dresden Unit 3, it shall not be required for Dresden Unit 2.

QUAD CITIES Units 1 and 2

DPR-29 & 30

DRAFT Technical Specifications Concerning Degraded Voltage Relays

Revised Pages:

3.2/4.2-12 3.2/4.2-13 3.2/4.2-16 3.9/4.9-1 3.9/4.9-3 3.9/4.9-4

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TABLE 3.2-2

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Operatie or	•	••	•
Incounter beggi		. · ·	
iamóls ⁽¹⁾	Trip Function	Trip Level Setting	Remarks
4	Reactor low low	≥84 inches (+4 inches/-0 inch)	1. In conjunction with low-reactor pressure
	water level	above top of active fuel*	initiates core spray and LPCI.
			2. In conjunction with high-drywell pressur
		•	120-second time delay and low-pressure
•			core cooling interlock initictes auto
	•		blowdown.
		•	 Initiates HPCI and RCIC. Initiates starting of diesel generators.
	u		4. millioles starting of dieser generators.
4(4)	High-drywell	≤2 psig	1. Initiates core spray, LPCI, HPCI, and
· ·	pressure ⁽²⁾ , ⁽³⁾	•	SGTS.
. •			2. In conjunction with low low water level,
		•	120-second time delay, and low-pressur core cooling interlock initiates auto
:	·		blowdown.
		e	3. Initiates starting of diesel generators.
· .		· · · ·	4. Initiates isolation of control room
*	· •		ventilation.
2	Reactor low	300 psig≤p≤350 psig	1. Permissive for opening core spray and U
- •	pressure	··· • • • • • • • • •	admission valves.
·	•		2. In conjunction with low low reactor wate
	. "I	•	level initiates core spray and LPCI.
	Containment spray		Prevents inadvertent operation of containment
	interlock		spray during accident conditions.
2 ^{cn}	2/3 core height	≥2/3 core height	
40)	containment	0.5 psig≤p≤1.5 psig	
	high pressure		
2	Timer auto	≤120 seconds	In conjunction with low low reactor water
	blowdown	a try grant	level, high-drywell pressure, and low-pressure
		÷	core cooling interlock initiates auto blow-
	•	·	down.
4	Low-pressure core	100 psig≤p≤150 psig	Defers APR actuation pending confirmation of
	cooling pump dis-		low-pressure core cooling system operation.
	charge pressure		
5) /Bus	Undervoltage on4kv	N/A	1. Initiates starting of diesel generators.
, - 4 0	emergency buses	· · · · ·	2. Permissive for starting ECCS pumps.
		•	3. Removes nonessential loads from buses.

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TABLE 3.2-2 (Cont'd)

Minimum Number of Operable or Tripped Instru- ment Channels (1)	Trip Function	Trip Level Setting	<u>a sa Remarks</u>
2 ⁽⁵⁾ /Bus	Degraded Volt- age on 4KV Emergency Buses	3904 volts + 2% with 5 + 2% minute time delay	Initiates alarm and picks up time delay relay. Diesel Generator picks up load if degraded
	ی بر جانب کر ان		voltage not corrected after time delay.

NOTES

- I. For all positions of the reactor mode selector switch (except for the containment interlock) whenever any ECCS subsystem is required to be operable, there shall be two operable trip systems. If the first column cannot be met for one or both of the trip systems, the systems actuated shall be declared inoperable and Specifications 3.5 or 3.9 shall govern.
- 2. Need not be operable when primary containment integrity is not required.
- 3. If an instrument is inoperable, it shall be placed (or simulated) in the tripped condition so that it will not prevent containment spray.
- 4. There are a total of eight high drywell pressure sensors. Four are used for core spray and LPCI initiation, and four are used for HPCI and auto blowdown initiation. This specification applies to each set of four sensors.
- 5. With the number of operable channels one less than the total number of channels, operation may proceed until performance of the next required functional test, provided the inoperable channel is placed in the tripped condition within one hour.

3.2/4.2-13

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TABLE 4.2-1

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MINIMUM TEST AND CALIBRATION FREQUENCY FOR CORE AND CONTAINMENT COOLING SYSTEMS INSTRUMENTATION, ROD BLOCKS, AND ISOLATIONS⁽⁷⁾

11. High water level in scram discharge volume Refueling outage Not applicable None Main Steamline Isolation 1. Steam tunnel high temperature Refueling outage Refueling outage None 2. Steamline high flow (1) Once/3 months Once/day 3. Steamline high radiation (1) Once/3 months None 4. Steamline high radiation (1) (4) Refueling outage Once/day 5. Reactor low low water level (1) Once/3 months Once/day 1. Steamline high flow (1) Once/3 months None 2. Turbine area high temperature Once/3 months Once/3 months None 2. Turbine area high temperature Refueling outage None None	Instr Chan	ument	Instrument Functional Test ⁽²⁾	Calibration ⁽²⁾	Instrument Check ⁽²⁾	· •
2. Drywell high pressure (1) Once/3 months None 3. Reactor low pressure (1) Once/3 months None 4. Containment spray interlock a. 2/3 core height (1) Once/3 months None 5. Low-pressure core cooling pump (1) Once/3 months None None 6. Undervoltage 4.VV essential Refueling outage Refueling outage None 7. Degraded Voltage 4.VV essential Refueling outage None None 7. SRM downscale (1) (3) Once/3 months None 7. SRM downscale (1) (3) Once/3 months None 8. RMM downscale (1) (3) Once/3 months None 7. SRM downscale (1) (3) Once/3 months None 8. RMM downscale (1) (3) Once/3 months None 7. SRM downscale (1) (3) Once/3 months None 8. SRM detector not in startup position (5) (3) (6) None 9. IRM detector not in startup	ECCS	Instrumentation				
3. Reactor low pressure (1) Once/3 months None 4. Containment spray interlock . . Once/3 months None b. Containment pressure (1) Once/3 months None b. Containment pressure (1) Once/3 months None cischarge 6. Undervoltage 4-kV essential Buses Refueling outage Refueling outage None 7. Degraded Voltage 4-kV essential Buses Refueling outage Refueling outage None None 8. Undervoltage 4-kV essential Buses Refueling outage Refueling outage None None 7. Degraded Voltage 4-kV essential Buses Refueling outage None None None 8. Undervoltage 4-kV essential Buses Refueling outage None None None 1. APRM downscale (1) (3) Once/3 months None None 2. APRM flow variable (1) (3) Refueling outage None None 3. IRM upscale (5) (3) (5) (3) None None 5. RBM downscale (1) (3) Refueling outage None None 7. SSM upscale (5)	1.	Reactor low-low water level	(1)	Once/3 months	Once/day	
4. Containment spray interlock a. 2/3 core height (1) Once/3 months None b. Containment pressure (1) Once/3 months None c. Low-pressure core cooling pump (1) Once/3 months None discharge 6. Undervoltage 4-kV essential Refueling outage Refueling outage None 6. Undervoltage 4-kV essential Refueling outage Refueling outage None 7 Degraded Voltage 4-kV Resculing outage None None 7 SRM upscale (1) (3) Once/3 months None 7 SRM upscale (1) (3) Once/3 months None 8 SRM upscale (1) (3) Once/3 months None 6. RBM downscale (1) (3) Refueling outage None 7 SRM upscale (1) (3) Once/3 months None 8. SRM detector not in startup (5) (3) (5) (3) None 9. IRM detector not in startup position (5) (6) None 10. SRM downscale	2.	Drywell high pressure	(1)	Once/3 months	None	
a. 2/3 core height (1) Once/3 months None b. Containment pressure (1) Once/3 months None 5. Low-pressure core cooling pump (1) Once/3 months None 6. Undervoltage 4-kV essential Refueling outage Refueling outage None 7. begraded Voltage 4-kV essential Buses Refueling outage Refueling outage None 7. begraded Voltage 4-kV essential Buses (1) (3) Once/3 months None 7. begraded Voltage 4-kV essential Refueling outage None None 8. dBicks (1) (3) Once/3 months None 1. APRM downscale (1) (3) Refueling outage None 3. IRM upscale (5) (3) (5) (3) None 6. RBM downscale (1) (3) Refueling outage None 7. SRM upscale (5) (3) (5) (3) None 8. SKM detector not in startup (5) (3) (5) (3) None 9. IRM detector not in startup (5) (3) (5) (3) None 10. ScRM downscale (5) (3) (5) (3) None 11. High water level in scram Refueling o	3.	Reactor low pressure	(1)	Once/3 months	None	
b. Containment pressure (1) Once/3 months None 5. Low-pressure core cooling pump discharge (1) Once/3 months None 6. Undervoltage 4-kV essential responded Voltage 4-kV essential Buses Refueling outage Refueling outage Refueling outage None 7. Degraded Voltage 4-kV essential Buses Refueling outage Refueling outage None 8. Degraded Voltage 4-kV essential Buses (1) (3) Once/3 months None 8. APRM flow variable (1) (3) Once/3 months None 1. APRM downscale (5) (3) (5) (3) None 3. IRM upscale (5) (3) (5) (3) None 4. IRM downscale (1) (3) Once/3 months None 5. RBM upscale (1) (3) Once/3 months None 6. RBM downscale (5) (3) (5) (3) None 7. SRM upscale (5) (3) (5) (3) None 8. SIM detector not in startup position (5) (6) None 9. IRM downscale (5) (3) (5) (3) None 10. Stam downscale (5) (3) (5) (3) None 11. High water level in scr	4.	Containment spray interlock			•	
5. Low-pressure core cooling pump discharge (1) Once/3 months None 6. Undervoltage 4-kV essential Degraded Voltage 4kV essential Buses Refueling outage Refueling outage Refueling outage None 7. APRM flow variable (1) (3) Once/3 months None 7. APRM flow variable (1) (3) Refueling outage None 8. IRM downscale (5) (3) (5) (3) None 7. SRM upscale (1) (3) Refueling outage None 8. RSM downscale (1) (3) Once/3 months None 7. SRM upscale (1) (3) Once/3 months None 8. SRM detector not in startup position (5) (3) (5) (3) None 9. IRM detector not in startup position (5) (6) None 9. IRM detector not in startup position (5) (3) (5) (3) None 10. SRM downscale (5) (3) (5) (3) None 11. High water kvel in scram Refueling outage Not applicable None 2. Steamline high flow <td< td=""><td></td><td>a. 2/3 core height</td><td>(1)</td><td>Once/3 months</td><td>None</td><td></td></td<>		a. 2/3 core height	(1)	Once/3 months	None	
5. Low-pressure core cooling pump discharge (1) Once/3 months None 6. Undervoltage 4-kV essential Degraded Voltage 4kV essential Buses Refueling outage Refueling outage Refueling outage None 7. APRM flow variable (1) (3) Once/3 months None 7. APRM flow variable (1) (3) Refueling outage None 8. IRM downscale (5) (3) (5) (3) None 7. SRM upscale (1) (3) Refueling outage None 8. RSM downscale (1) (3) Once/3 months None 7. SRM upscale (1) (3) Once/3 months None 8. SRM detector not in startup position (5) (3) (5) (3) None 9. IRM detector not in startup position (5) (6) None 9. IRM detector not in startup position (5) (3) (5) (3) None 10. SRM downscale (5) (3) (5) (3) None 11. High water kvel in scram Refueling outage Not applicable None 2. Steamline high flow <td< td=""><td></td><td>b. Containment pressure</td><td>(1)</td><td>Once/3 months</td><td>None</td><td></td></td<>		b. Containment pressure	(1)	Once/3 months	None	
discharge Hundervoltage 4-kV essential Degraded Voltage 4/v essential Buses Refueling outage Refueling outage Refueling outage Refueling outage None 1. APRM downscale (1) (3) Once/3 months None 2. APRM flow variable (1) (3) Refueling outage None 3. IRM ownscale (1) (3) Refueling outage None 3. IRM downscale (1) (3) Refueling outage None 3. IRM downscale (1) (3) Refueling outage None 5. RBM upscale (1) (3) Refueling outage None 6. RBM downscale (1) (3) Once/3 months None 7. SRM upscale (5) (3) (5) (3) None 8. SRM detector not in startup position (5) (6) None 9. IRM deverscale (5) (3) (5) (3) None 10. SRM downscale (5) (3) (5) (3) None 9. IRM deverscale (5) (3) (5) (3) None 10. Steam line ligh flow (1) Once/3 months None	5.			Once/3 months	None	,
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7. Degraded Voltage 4/v essential Buses Refueling outage None Rod Blocks 1. APRM downscale (1) (3) Once/3 months None 2. APRM flow variable (1) (3) Refueling outage None 3. IRM upscale (5) (3) (5) (3) None 4. IRM downscale (5) (3) (5) (3) None 5. RBM upscale (1) (3) Refueling outage None 6. RBM downscale (1) (3) Once/3 months None 7. SRM upscale (1) (3) Once/3 months None 8. SRM downscale (5) (3) (5) (3) None 9. IRM detector not in startup position (5) (6) None 10. SRM downscale (5) (3) (5) (3) None 11. High water level in scram Refueling outage None 12. Steam tunnel high temperature Refueling outage None 13. Steamline high flow (1) Once/3 months None 14. Steamline high registion (1)	6.	-	Refueling outage	Refueling outage	None	
Red Blocks 1. APRM downscale (1) (3) Once/3 months None 2. APRM flow variable (1) (3) Refueling outage None 3. IRM upscale (5) (3) (5) (3) None 4. IRM downscale (5) (3) (5) (3) None 5. RBM upscale (1) (3) Refueling outage None 6. RBM downscale (1) (3) Once/3 months None 7. SRM upscale (5) (3) (5) (3) None 8. SRM detector not in startup (5) (3) (6) None 9. IRM detector not in startup (5) (3) (5) (3) None 10. SRM wascale (5) (3) (5) (3) None 11. High water level in scram Refueling outage Not applicable None 11. Steamline lsolation (1) Once/3 months None 12. Steamline high flow (1) Once/3 months None 13. Steamline high radiation (1) Once/3 months Once/day 13. Stea		Degraded Voltage 4kv	Refueling outage	•		
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3.9/4.9 AUXILIARY ELECTRICAL SYSTEMS

LIMITING CONDITIONS FOR OPERATION

Applicability:

Applies to the auxiliary electrical power system.

Objective:

To assure an adequate supply of electrical power during plant operation.

SURVEILLANCE REQUIREMENTS

Applicability:

Applies to the periodic testing requirement of the auxiliary electrical system.

Objective:

To verify the operability of the auxiliary electrical system.

SPECIFICATIONS

A. Normal and Emergency A-C Auxiliary Power

The reactor shall not be made critical unless all the following requirements are satisfied.

1. The Unit diesel generator and the Unit 1/2 diesel generator shall be operable.

A. Normal and Emergency A-C Auxiliary Power

- a. Each diesel generator shall be manually started and loaded once each month to demonstrate operational readiness. The test shall continue until both the diesel engine and the generator are at equilibrium conditions of temperature while full load output is maintained.
 - b. During the monthly generator test, the diesel-starting air compressor shall be checked for operation and its ability to recharge air receivers.
 - c. During the monthly generator test, the diesel fuel oil transfer pumps shall be operated.

2. The status of the 345-kV lines, associated switchgear, and the reserve auxiliary power transformer shall be

2. One 345-kV line, associated switchgear, and the reserve auxiliary power transformer capable of carrying power unless an additional line is sooner placed in service, providing both the Unit and Unit 1/2 emergency diesel generators are operable.

- 2. From and after the date the incoming power is not available from any line, continued reactor operation is permissible providing both the Unit and Unit 1/2 emergency diesel generators are operating, all core and containment cooling systems are operable, reactor power level is reduced to 40% of rated, and the NRC is notified within 24 hours of the situation, the precautions to be taken during this period, and the plans for prompt restoration of incoming power.
- 3. From and after the date that one of the two 125/250-volt battery systems is made or found to be inoperable for any reason, continued reactor operation is permissible only during the succeeding 3 days unless such battery system is sooner made operable.

D. Diesel Fuel

There shall be a minimum of 10,000 gallons of diesel fuel supply on site for each diesel generator.

E. Diesel-Generator Operability

1. Whenever the reactor is in the Startup/Hot Standby or Run mode and the unit or shared diesel generators and/or their respective associated.... buses are made or found to be inoperable for any reason, except as specified and the state in Specification 3.9.E.2 below, continued reactor operation is permissible only during the succeeding 7 days provided that all of the low-pressure core cooling and all loops of the containment cooling mode of the RHR system associated with the operable diesel generator shall be operable, and two offsite lines are available. If this requirement cannot be met, an orderly shutdown shall be initiated and the

D. Diesel Fuel

Once a month the quantity of diesel fuel available shall be logged.

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Once a month a sample of diesel fuel shall be checked for quality.

E. Diesel-Generator Operability

1. When it is determined that either the unit or shared diesel generator is inoperable, all lowpressure core cooling systems and all loops of the containment cooling modes of the RHR system associated with the operable diesel generator shall be demonstrated to be operable immediately and daily thereafter. The operable diesel generator shall be demonstrated to be operable immediately and daily thereafter.

During each refueling outage, a simulated loss of off-site power in conjunction with an ECCS initiation signal test shall be performed on the 4160 volt emergency bus by:

2.



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reactor shall be in the cold shutdown condition within 24 hours.

- 2. Specification 3.9.E.l shall not apply when a diesel generator has been made inoperable for a period not to exceed 1-1/2 hours for the purpose of conducting preventative maintenance. Additionally, preventative maintenance shall-not be undertaken unless two off site lines are available and the alternate diesel generator has been demonstrated to be operable.
- 3. Whenever the reactor is in the Cold Shutdown or Refueling mode, a minimum of one diesel generator (either the Unit diesel generator or the Unit 1/2 diesel generator) shall be operable whenever any work is being done which has the potential for draining the vessel, secondary containment is required, or a core or containment cooling system is required.

- a. Verifying de-energization of the emergency buses, and load shedding from the emergency buses.
- b. Verifying the diesel starts from ambient condition on the auto-start signal, energizes the emergency buses with permanently connected loads, energizes the auto-connected emergency loads through the load sequencer, and operates for > 5 minutes while its generator Is loaded with the emergency loads.
- c. Verifying that on a diesel generator breaker trip, the loads are shed from the emergency buses, the emergency buses are energized with permanently connected loads, the auto-connected emergency loads are energized through the load sequencer, and the diesel operates while its generator is loaded with the emergency loads.

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